# CLAIMS

1. A system for detecting discontinuously transmitted frames comprising:

first means for receiving data transmitted in a plurality of frames;

second means for classifying each of the frames;

third means for analyzing the classification of a number of successive frames of the received data and providing a metric with respect thereto; and

fourth means, responsive to the metric, for determining if a frame is a discontinuously transmitted frame.

2. The invention of Claim 1 wherein the second means includes means for error checking the frames.

3. The invention of Claim 2 wherein the means for error checking includes means for performing a cyclic redundancy check.

4. The invention of Claim 3 wherein the second means includes means for classifying the frames as good frames, erasure frames, or discontinuous frames.

5. The invention of Claim 4 wherein the third means includes a filter.

6. The invention of Claim 5 further including means for assigning a numerical value to each of the frames based on the classification thereof.

7. The invention of Claim 6 wherein the filter is of the form $Yn = Yn\text{-}1 + Xn$ where 'n' is a frame number, Yn is the filter output for a given frame n, Yn-1 is the filter output for a previous frame, and Xn is a stream of input frames.

8. The invention of Claim 7 further including means for setting a threshold for the output Yn of the filter.

9. The invention of Claim 8 further including means for outputting an indication of a detection of a discontinuous transmission frame when the filter output exceeds the threshold.

10. The invention of Claim 9 further including means for reclassifying frames in response to the fourth means.

11. The invention of Claim 10 wherein the means for reclassifying frames includes means for changing the frame classification to discontinuous if the frame was classified as erasure and the output of the filter exceeds the threshold.

12. A communications system comprising:

a transmitter adapted to transmit frames of data, at least some of the frames being discontinuous;

a receiver adapted to receive and classify the transmitted frames;

a processor; and

software running on the processor for analyzing the classification of a number of successive frames of the received data and providing a metric with respect thereto and for determining, in response to the metric, if a frame is a discontinuously transmitted frame.

13. The invention of Claim 12 wherein the system includes an error checking mechanism.

14. The invention of Claim 13 wherein the error checking mechanism includes means for performing a cyclic redundancy check.

15. The invention of Claim 14 wherein the system includes means for classifying the frames as good frames, erasure frames, or discontinuous frames.

16. The invention of Claim 15 wherein the software includes a filter.

17. The invention of Claim 16 wherein the software further includes means for assigning a numerical value to each of the frames based on the classification thereof.

18. The invention of Claim 17 wherein the filter is of the form $Yn = Yn\text{-}1 + Xn$ where 'n' is a frame number, $Yn$ is the filter output for a given frame n, $Yn\text{-}1$ is the filter output for a previous frame, and $Xn$ is a stream of input frames.

19. The invention of Claim 18 further including means for setting a threshold for the output $Yn$ of the filter.

20. The invention of Claim 19 further including means for outputting an indication of a detection of a discontinuous transmission frame when the filter output exceeds the threshold.

21. The invention of Claim 20 further including means for reclassifying frames in response to the fourth means.

22. The invention of Claim 21 wherein the means for reclassifying frames includes means for changing the frame classification to discontinuous if the frame was classified as erasure and the output of the filter exceeds the threshold.

23. A method for detecting discontinuous transmission frames including the steps of:

receiving data transmitted in a plurality of frames;

classifying each of the frames;

analyzing the classification of a number of successive frames of the received data and providing a metric with respect thereto; and

determining, in response to the metric, if a frame is a discontinuous frame.

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24. The invention of Claim 23 wherein the step of classifying includes the step of error checking the frames.

25. The invention of Claim 24 wherein the step of error checking includes the

10    step of performing a cyclic redundancy check.

26. The invention of Claim 25 wherein the step of classifying includes the step of classifying the frames as good frames, erasure frames, or discontinuous frames.

15    27. The invention of Claim 26 further including the step of assigning a numerical value to each of the frames based on the classification thereof.

28. The invention of Claim 27 wherein the step of classifying includes the step of computing a filter output: $Yn = Yn\text{-}1 + Xn$ where 'n' is a frame number, Yn is the

20    filter output for a given frame n, Yn-1 is the filter output for a previous frame, and Xn is a stream of input frames.

29. The invention of Claim 28 further including the step of setting a threshold for the output Yn.

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30. The invention of Claim 29 further including the step of outputting an indication of a detection of a discontinuous transmission frame when the filter output exceeds the threshold.

31. The invention of Claim 30 further including the step of for reclassifying frames in response to the fourth means.

32. The invention of Claim 31 wherein the step of reclassifying frames includes the step of changing the frame classification to discontinuous if the frame was classified as erasure and the output of the filter exceeds the threshold.